Special Issue

Power Electronics, Control, and Energy Systems for the Energy Transition and Renewable Energy Conversion Processes

Message from the Guest Editors

This Special Issue invites original research and review papers that contribute to the theoretical and practical development of these technologies. The scope includes, but is not limited to, the following:

- Renewable energy systems: Architectures, algorithms, and applications for solar, wind, marine, and hybrid systems.
- Power conversion and control: New converter topologies, modulation techniques, and control strategies (linear, nonlinear, predictive, adaptive, or Albased).
- Integration technologies: Grid and off-grid systems, microgrids, storage integration, and power quality improvement.
- Power and energy systems: Modeling, stability, and optimization of grids with high renewable penetration.
- Smart and sustainable applications: Electromobility, hydrogen, vehicle-to-grid (V2G/V2X), smart grids, and digital twins.
- System-level management: Energy management, demand response, and coordinated operation of distributed resources.

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